

ABSTRACT

According to the conventional process of separating necessary cells from a cell mixture containing specific cells tagged with magnetic beads, there is a problem in that separation process is complicated when the separation efficiency is high whereas the separation efficiency is relatively low when the separation process is simplified.

The present invention provides an apparatus and method for separating cells from a cell mixture simply and efficiently through the processes of creating a cell mixture layer between upper and lower plates by adjusting a gap between the upper and lower plates and of adjusting a thickness of the created layer and separating the layer while applying a magnetic field to the layer from the upper plate, wherein the lower plate is provided with a cell mixture holding portion, in which the cell mixture containing specific cells tagged with magnetic beads is accommodated in an upwardly convex shape, at a top surface thereof and the upper plate is positioned above the lower plate to face each other and to adsorb the cell mixture accommodated in the cell mixture holding portion of the lower plate into a bottom surface thereof.